

**UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

PARKERVISION, INC.,

Plaintiff

v.

INTEL CORPORATION,

Defendant

Case No. 6:20-cv-00108-ADA

**PLAINTIFF PARKERVISION, INC.'S RESPONSE IN OPPOSITION TO DEFENDANT
INTEL CORPORATION'S MOTION FOR SUMMARY JUDGMENT OF NO WILLFUL
INFRINGEMENT**

TABLE OF CONTENTS

I. INTRODUCTION..... 1

II. LEGAL STANDARD 2

III. Statement of facts 3

IV. ARGUMENT 7

 A. A Reasonable Juror Could Conclude that Intel Knew of the Asserted
 Patents 7

 B. A Reasonable Juror Could Conclude that Intel Intended to Infringe..... 11

V. CONCLUSION..... 13

TABLE OF AUTHORITIES**Page(s)****Cases**

<i>Anderson v. Liberty Lobby, Inc.</i> , 477 U.S. 242 (1986).....	2
<i>Bayer Healthcare LLC v. Baxalta Inc.</i> , 989 F.3d 964 (Fed. Cir. 2021)	2
<i>Celotex Corp. v. Catrett</i> , 477 U.S. 317 (1986).....	2
<i>Impossible Elecs. Techniques v. Wackenhut Protective Sys., Inc.</i> , 669 F.2d 1026 (5th Cir. 1982).....	2
<i>Intellectual Ventures II LLC v. Sprint Spectrum, L.P.</i> , 2019 U.S. Dist. LEXIS 75058 (E.D. Tex. Apr. 12, 2019)	2
<i>Jones v. Geophysical Co.</i> , 669 F.2d 280 (5th Cir. 1982).....	2
<i>Matsushita Elec. Indus., Co. v. Zenith Radio Corp.</i> , 475 U.S. 574 (1986).....	2
<i>Moleculon Research Corp. v. CBS, Inc.</i> , 793 F.2d 1261 (Fed. Cir. 1986)	2
<i>Optolum, Inc. v. Cree, Inc.</i> , No. 1:17CV687, 2021 U.S. Dist. LEXIS 226552 (N.D.N.C. Nov. 24, 2021).....	3
<i>Parity Networks, LLC v. Cisco Sys., Inc.</i> , No. 6:19-cv-00207-ADA, 2019 WL 3940952 (W.D. Tex. July 26, 2019)	10
<i>Tolan v. Cotton</i> , 572 U.S. 650 (2014).....	2

Other Authorities

FED. R. CIV. P. 56(a)	2
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I. INTRODUCTION

Intel suggests that for willful infringement, there must be an admission that Intel copied a particular patent. That is not that law. Willful infringement can (and in most cases is) established by circumstantial evidence – like the evidence in this case. Here, ParkerVision has amassed extensive evidence of Intel’s decade-plus-long analysis of ParkerVision’s intellectual property. Intel’s documents expressly admit that their engineers considered ParkerVision’s patented technology to be “groundbreaking mixer IP” and that they discussed the [REDACTED] in their products – even after they determined that the “very high royalty cost” associated with licensing ParkerVision’s patents was not attractive.

From this evidence alone, a jury could readily infer that Intel’s infringement was willful. But there is much more. The documents in this case detail Intel’s engineers’ “assessment” of ParkerVision and patents. They highlight the many discussions between and among the parties about ParkerVision’s technology and intellectual property, and Intel’s need for it. Because the substantial evidence accumulated leaves disputed issues of fact about what Intel knew and what it intended, the issue of Intel’s willful infringement should be considered by the jury.

Intel’s motion, however, ignores the totality of the evidence. Instead, Intel relies on a subset of the facts and then asks the Court to make inferences in its favor to conclude that its infringement was not willful. But the law requires the opposite—that all reasonable inferences be resolved in ParkerVision’s favor. And Intel cannot analyze each piece of evidence separately to suggest that it is not enough—because each piece of evidence is part of a mosaic that depicts Intel’s access, rational, and incentives for knowingly infringing ParkerVision’s patents.

II. LEGAL STANDARD

Summary judgment is appropriate “if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” FED. R. CIV. P. 56(a); *Tolan v. Cotton*, 572 U.S. 650, 656–57 (2014). A material fact will have a reasonable likelihood to affect the outcome of the case. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). An issue is not genuine if the trier of fact could not, after an examination of the record, rationally find for the non-moving party. *Matsushita Elec. Indus., Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986). As such, the burden of demonstrating a lack of a genuine dispute of material fact lies with the movant. *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986).

A court must view the movant’s evidence and all factual inferences from such evidence in a light most favorable to the party opposing summary judgment. *Impossible Elecs. Techniques v. Wackenhut Protective Sys., Inc.*, 669 F.2d 1026, 1031 (5th Cir. 1982). The fact that the court believes that the non-moving party may be unsuccessful at trial is an insufficient reason to grant summary judgment. *See Jones v. Geophysical Co.*, 669 F.2d 280, 283 (5th Cir. 1982).

“Willful infringement is a question of fact.” *Bayer Healthcare LLC v. Baxalta Inc.*, 989 F.3d 964, 987 (Fed. Cir. 2021). Like other issues of fact, “[t]he willfulness determination should be decided by the jury when genuine disputes of material fact are present.” *Intellectual Ventures II LLC v. Sprint Spectrum, L.P.*, 2019 U.S. Dist. LEXIS 75058, at *5 (E.D. Tex. Apr. 12, 2019) (citing *Exmark Mfg. Co. Inc. v. Briggs & Stratton Power Prods. Grp., LLC*, 879 F.3d 1332, 1353 (Fed. Cir. 2018)). “[I]t is hornbook law that direct evidence of a fact is not necessary.

‘Circumstantial evidence is not only sufficient, but may also be more certain, satisfying and persuasive than direct evidence.’” *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 1272 (Fed. Cir. 1986) (citing *Michalich v. Cleveland Tankers, Inc.*, 364 U.S. 325, 330 (1960)).

“[C]ircumstantial evidence can, and often is[,] necessary to[,] establish knowledge and intent . . . as to a willful or deliberate infringement” *Optolum, Inc. v. Cree, Inc.*, No. 1:17CV687, 2021 U.S. Dist. LEXIS 226552, at *10 (N.D.N.C. Nov. 24, 2021).

III. STATEMENT OF FACTS

The patents-in-suit related to the receiver side configuration of wireless/cellular chips. ParkerVision referred to this technology as D2D (direct to data). From the early days of ParkerVision’s portfolio, Intel was aware of ParkerVision’s patents covering “unique radio frequency (RF) receiver architecture.” Ex. 1. [REDACTED]

[REDACTED] U.S. patent 6,061,551 (“the ’551 patent”) which is the ultimate parent patent of four of the six patents-in-suit and discloses the elements of the currently asserted claims. (U.S. Patent Nos. 6,580,902 (the “’902 patent”); 9,118,528 (the “’528 patent”); 9,246,736 (the “’736 patent) and 9,444,673 (the “’673 patent”)). Exs. 2-5. By this time, Intel and ParkerVision had entered into a non-disclosure agreement to [REDACTED] of ParkerVision. Ex. 6 at 22:22-23:4; Ex. 7. Another NDA was put in place in 2002—executed directly by David Sorrells for ParkerVision, the first named inventor on each and every patent-in-suit. Ex. 8.

[REDACTED] Ex. 9.
[REDACTED]
[REDACTED]
[REDACTED] *Id.* at section 3.

In 2007, Intel engineers (after yet another meeting with ParkerVision), specifically referred to ParkerVision’s receiver patents as “ground-breaking mixer IP.” Ex. 10; Ex. 11.

In 2011, Intel acquired Infineon's Wi-fi chip business. Ex. 12. Like Intel, Infineon had been talking to ParkerVision about its technology and intellectual property. In 2002, Infineon and ParkerVision presented at the IEEE conference in Seattle in the same subgroup regarding transceivers. At least Harold Pretl (lead technical expert regarding transceivers) attended ParkerVision's presentation on energy sampling in receivers. Ex. 13; Ex. 14.

Over the years, there were several meetings with ParkerVision and extensive technical materials were exchanged (including an 86-page white paper on D2D design). Exs. 15-27. Those meetings often included discussion of ParkerVision's patents and/or patent numbers. Ex. 22; Ex. 23; Ex. 28. Ex. 29 at 25:20-26:2; 27:2-17 (discussing the '474 patent with Infineon); 129:7-23; 170:25-171:24; see also 47:21-24; 48:11-49:2; 50:10-19. Lists of patents numbers were also provided. Ex.29 at 22:7-23; 127:17-128:7; 168:11-15; 174:16-175:9; 176:5-177:4.

The meetings between Infineon and ParkerVision, as well as internal meetings at Infineon regarding ParkerVision, included engineers across a variety of specializations including receiver architecture and design. Exs. 22, 25, 28, 30-34. [REDACTED]

[REDACTED]); Hays Ex. 27 [REDACTED]
Ex. 35.

Zdrako Boos (among others) led the investigation of ParkerVision on behalf of Infineon. One of Mr. Boos's core responsibilities was "assessment" of ParkerVision. Exs. 33 and 34. His employee evaluations indicate that [REDACTED]

[REDACTED] Ex. 33; Ex. 34. Mr. Boos was valued for his ability [REDACTED]

[REDACTED] *Id.* These documents also conclude that ParkerVision's patented

concepts were determined to have a “very high royalty cost.” Ex. 33. Mr. Boos’ responsibility for “patent assessment” continued during his time at Intel. Ex. 36.

Over the course of many years, [REDACTED]

[REDACTED] Exs. 22, 24, 27, 37, 38, 39.

In 2008, [REDACTED]

[REDACTED] Ex. 40. In 2009, engineers discussed what had been discovered by taking “a look into Parker Vision’s technology.” Ex. 41 and 42.

[REDACTED] Ex. 42. [REDACTED]

[REDACTED]. Exs. 42 and 43. [REDACTED]

[REDACTED] Exs. 44-45.

Right around the time that Intel acquired Infineon, [REDACTED]

[REDACTED] Ex. 6 at 65:7-17; Ex. 46. [REDACTED]

[REDACTED] Ex. 47 at 727-765; Ex. 48 at 330-368; Ex 49 at 23-61. The first of those maps indicated that Skyworks owned four patents in the area—but that ParkerVision owned seventy-four. Ex. 47 at 727; Ex. 48 at 330; Ex. 49 at 23. Among the patents specifically listed in those documents were two of the patents-in-suit (the ’902 and ’474 patents) as well as U.S. patent No. 6,061,551 (the priority patent for most of the patents in this case.) Ex. 6 at 76:21-77:10, 78:5-21; Ex. 47 at 727; Ex. 48 at 330; Ex. 44 at 23. [REDACTED]

[REDACTED] Ex. 50.

[REDACTED]
[REDACTED] Ex. 50. [REDACTED].

Ex. 46. [REDACTED]

[REDACTED]. Ex. 6 at 53:23-54:12; Ex. 51. [REDACTED]

[REDACTED] ParkerVision's patented technology was viewed to have a "very high royalty cost," and Intel did not buy or license ParkerVision's technology. Ex. 33.

[REDACTED]
[REDACTED]. Ex. 50; Ex. 52. In 2016, Intel received a subpoena from ParkerVision in an ITC action against Apple regarding Intel chips used in Apple products [REDACTED]

[REDACTED] ParkerVision patents, including the '528 patent. Ex. 53 at 2. [REDACTED]

[REDACTED]
[REDACTED] Ex. 6 at 95:17-24; Ex. 54. [REDACTED]

[REDACTED] Ex. 6 at 96:8-14. [REDACTED]

[REDACTED] Ex. 55 at 5-6. That adjudication was reserved for other actions—such as this one.

While Intel suggests that *some* of its engineers did not meet with, or know of, ParkerVision, it is uncontested that the engineers at Infineon and Intel collaborated and worked in teams with others who were actively involved in the discussions with, and the analysis of, ParkerVision. For example, Dr. Schelmbauer (all Accused Products) and Dr. Schwartz (SMARTi 7) were circuit designers who worked on the receiver side. [REDACTED]

[REDACTED] Ex. 14 at 242:12-249:14; Ex. 56 at 32.

Mr. Herzinger met with ParkerVision regarding ParkerVision's D2D technology. Ex. 27. Dr.

Schwartz, who worked solely on receiver design), reported to Mr. Boos. [REDACTED]

[REDACTED] See, e.g., Ex. 57-60.

During a portion of the period that ParkerVision was speaking with Intel/Infineon, it subscribed to service called Leadlander which tracked visitors to ParkerVision's website. These records indicate that Intel/Infineon employees often visited ParkerVision's website. Ex. 61. The visits often correspond in time to meetings with—or about—ParkerVision. For example, shortly after [REDACTED]

[REDACTED], Infineon visited ParkerVision's website. Ex. 40 ; Ex. 61 at

PV_054540. Likewise, on the same day that [REDACTED]

[REDACTED], somebody at Infineon did a deep dive of ParkerVision's website visiting 23 pages. Ex. 41; Ex. 61 at PV_040013. And the website was again visited on the day that [REDACTED]

[REDACTED] Ex 42; Ex. 61 at PV_040019. At that time, [REDACTED]

[REDACTED] Ex. 44.

ParkerVision's website was dedicated to ParkerVision's patents, products and technology. Ex. 62; see, e.g., Ex. 63 at pdf pages 3-5, 181, 183, 185-188, 190, 198.

Intel admits that it was aware of the '902 patent as of August 22, 2014, and the '528 patent as of December 21, 2015. Ex. 64 at pg. 15.

IV. ARGUMENT

A. A Reasonable Juror Could Conclude that Intel Knew of the Asserted Patents

Intel contends that in the absence of emails showing that ParkerVision provided specific patent numbers, ParkerVision's willfulness case must be dismissed. Not true. First, [REDACTED]

██████████ A finding of willfulness requires only knowledge—not specific notice of a particular infringement—and that knowledge can come from anywhere. Here, ██████████
██████████ precludes summary judgment on this ground with respect to those patents.

Second, there is abundant additional evidence from which a reasonable juror could conclude that Intel knew of the asserted patents. In 2001, ██████████ ParkerVision’s ’551 patent—which is the parent to the ’902, ’528, ’736 and ’673 patents and which discloses the inventions claimed in those patents. Ex. 1. Intel made clear its intent to explore ParkerVision’s patented technology by entering NDA’s with ParkerVision in 1999 and 2002 to “protect the intellectual property” of ParkerVision. Exs. 7 and 8; Ex. 6 at 22:22-23:4. Intel’s second NDA was notably executed by David Sorrells—an inventor on all of the asserted patents. Ex. 8.

Intel’s review of ParkerVision patents was not an isolated event. Its engineers specifically discussed ParkerVision’s patents. Ex. 10. (“If you remember, they [ParkerVision] had some ground-breaking mixer IP”). Intel employees also regularly accessed ParkerVision’s website which was dedicated to ParkerVision’s technology, products and patents. Ex. 61; Ex. 63. Intel was also specifically made aware of the ’902 and ’474 patents in 2010 when it received “patent landscape” charts highlighting the dominance of ParkerVision’s patent portfolio in areas of interest to Intel. Ex 47 at 727; Ex. 48 at 330; Ex. 49 at 23; Ex. 6 at 76:21-77:10, 78:5-21.¹

When Intel acquired the business and engineers of Infineon, the engineers that joined

¹ ██████████
██████████
██████████
██████████

██████████ Ex. 65 at 18:16-19:13. The jury is entitled to infer that Intel would have looked at the materials provided to it about the portfolio and the portfolio’s significance in the technological area of focus.

Intel’s team had extensive experience with, and knowledge of, ParkerVision’s technology. Many technical meetings were conducted between ParkerVision and these engineers. Contemporaneous documents and record testimony indicate that ParkerVision’s patents were specifically discussed at meetings between ParkerVision and Infineon engineers and that ParkerVision sent patent numbers to Infineon. Ex. 22; Ex. 29 at 25:20-26:2; 27:2-17; 47:21-24; 48:11-49:2; 50:10-19; 22:7-23; 127:17-128:7; 129:7-23; 168:11-15; 170:25-171:24; 174:16-175:9; 176:5-177:4.

Zdrako Boos, an engineer involved in the development of Accused Products was—for years—tasked with “assessment” of ParkerVision [REDACTED]

[REDACTED]

[REDACTED] Ex. 33; Ex. 34; Ex. 36.

[REDACTED]

[REDACTED] Ex. 40.

Intel tries to distance itself from the Infineon engineers it brought aboard by arguing that “none of the emails say anything about *Intel’s* knowledge” because those emails happened before Intel acquired the business in 2011. That suggestion is misguided. The Infineon engineers did not plausibly forget everything they knew when their facilities put the “Intel” sign outside instead of the “Infineon” sign. The day that the Infineon engineers became Intel engineers and started using their knowledge about ParkerVision to design Intel chips, their knowledge became Intel’s knowledge.²

² The issue is not about “adopting” knowledge in an acquisition (as in the *Olaf Soot Design* case cited by Intel at page 7 of their brief), but rather that the Intel engineers designing Intel products had knowledge of ParkerVision technology. While they may have initially

Nor can Intel avoid a finding of willfulness by suggesting that the Intel employees with knowledge were only working on transmitter design—instead of receiver design. That is simply not true—and at the very least raises disputed issues of fact. Information on D2D technology (receiver side) and D2P technology (transmitter side) were shared extensively. Intel selectively quotes to portions of documents referencing only D2P, but the documents detail discussions and material regarding D2D technology and/or patents. Exs. 1, 10, 28, 31, 32, 38, 49, 53. An extensive white-paper on DVD technology was shared between the parties. Ex. 26³

And, as far as the makeup of Intel/Infineon employees was concerned, engineers involved in both receiver and transmitter issues were involved—and many played roles on both technologies. Intel’s Mr. Hertzinger (who attended meetings with ParkerVision) was the head of receiver architecture and worked directly with Dr. Schelmbauer who worked on the receiver side of every Accused Product. Dr. Schwartz (receiver design) reported to Mr. Boos. And Mr. Boos—who was waist-deep in ParkerVision analysis—met regularly with Mr. Hertzinger and others contributing to the receiver design. Ex. 39. As a simple matter of practicality, the design teams for each product included engineers, architects and designers skilled in receiver and transmitter technology.⁴

From the facts referenced above, a reasonable juror could readily infer that Intel “knew of the patent[s]-in-suit.” *Parity Networks, LLC v. Cisco Sys., Inc.*, No. 6:19-cv-00207-ADA, 2019

been exposed to that knowledge as employee of Infineon, they retained and used that knowledge as an employee of Intel.

³ There are also many documents (such as meeting invitations) that do not specify which ParkerVision technology was being discussed.

⁴ The argument to create a receiver/transmitter dichotomy is also a red herring because the *same* ParkerVision patents asserted in this case (focused on receivers) are also asserted against transmitters in the second case between the parties (focused on transmitters) before this Court designated 6:20-cv-00562.

WL 3940952, at *3 (W.D. Tex. July 26, 2019). Summary judgment should thus be denied.

B. A Reasonable Juror Could Conclude that Intel Intended to Infringe

A juror would not have to look too hard to find evidence of Intel's intent to infringe ParkerVision's patents. [REDACTED]

[REDACTED]

[REDACTED]

Ex. 40.

[REDACTED]

[REDACTED] A reasonable jury could fairly conclude that Mr. Boos and Intel were planning to use the asserted patented technology in their products.

Intel was also incentivized to surreptitiously incorporate ParkerVision's patented technology into its products, because it had determined that the "high royalty cost" that would be due ParkerVision for its patents was not what it wanted to pay. But Intel needed the technology. It is worth noting that [REDACTED] occurred *after* Intel engineers had decided not to cooperate with ParkerVision because it would cost too much.⁵ But Intel needed the technological benefits of the patented inventions in order to have a commercially viable product going forward and a jury is entitled to infer that Intel misappropriated ParkerVision's patented technology. Ex. 56 at paragraphs 423-424 and section XVIII.B).

⁵ Intel's suggestion that this fact is diminished because the royalty would be applicable to transmitter technology is misguided as the same patents would need to be licensed.

The jury is also entitled to infer that Intel would rather litigate than license [REDACTED]
[REDACTED]—and it didn’t change its products. It was subpoenaed in the ITC action
[REDACTED]—and still did nothing to avoid infringement.
Even after it was sued, there is no indication that Intel stopped using ParkerVision’s technology.⁶

Intel suggests that the ITC subpoena [REDACTED]
[REDACTED] the ’528 patent cannot, by itself, justify a finding of willfulness. Intel points to the fact that the Intel chip was not included in the accused products that would be the subject of an exclusion hearing. But Intel’s chips were excluded only because there was scant discovery available late in the proceeding, and ParkerVision chose to pursue its claims relating to Intel’s chips in a different forum. At most, this creates a genuine dispute of fact as to whether Intel was on notice that ParkerVision believed that its chips infringed. Given the allegations in the subpoena [REDACTED]
[REDACTED] a jury could reasonably conclude that Intel knew it was accused of infringement and was guilty of willfully continuing that infringement. Ex. 6 at 95:17-24; Ex. 54.

Lastly, Intel points to a litigation in Europe where ParkerVision accused Intel of infringing a German patent that claimed priority to the asserted ’902 patent. It suggests that the European Court’s finding of non-infringement negates willfulness here. It does not. A decision under a different country’s law, about a different patent, cannot insulate Intel from liability here. To the contrary, it shows that Intel was aware of the ’902 patent and its progeny and that it knew ParkerVision thought it infringed a related patent. Again, at best, there is a genuine issue of

⁶ Thus, post-filing willfulness would be appropriate. *Spacetime3D, Inc. v. Apple Inc.*, Case No. 6-22-CV-00149-ADA (W.D. Tex. Nov. 10, 2022).

disputed fact as to the import of the German litigation. Intel wants this Court to resolve all inferences in its favor—but the law is to the contrary and ParkerVision is entitled to the benefit of all inferences with respect to Intel’s summary judgment motion.

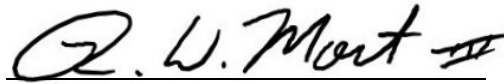
And, more broadly, Intel misses the point. Each piece of evidence cannot be separately analyzed, weighed and discarded as insufficient. The jury is entitled to weigh *all* of the admissible evidence together to determine Intel’s intent. Here, from the abundance of evidence discussed above, a jury could reasonably conclude that Intel’s infringement is willful.

V. CONCLUSION

For the foregoing reasons, the Court should deny Intel’s motion.

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Respectfully submitted,



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